



Acrylic has unique physical properties and performance characteristics. It weighs half as much as glass, yet is equal to glass in clarity and is up to 10 times more impact resistant.

Cell Cast Acrylic sheet has outstanding weatherability and formability, and can be formed into a variety of shapes making it ideally suitable for many end users such as illuminated signs, point of sale displays, furniture, skylights and architectural glazing.

Vale Plastics stock an array of sheet sizes, thicknesses and finishes including Clear, Opal, Colours, Mirror

Cast Acrylic Sheet Average Physical Properties

PROPERTIES	UNIT	
Specific Gravity (ASTM D792)		1.19
Hardness		HNC – 96
Water Absorption (ASTM D570)	%	0.35
Tensile Strength: (ASTM D638)		
Tensile strength at yield	Kg/cm ²	709
Tensile strength of break	Kg/cm ²	696
Tensile modulus	Kg/cm ²	29,532
Elongation at break	%	8
Bending Strength: (ASTM D790)		
Flexural Strength	Kg/cm ²	1.052
Flexural Modulus	Kg/cm ²	31,264
Impact Strength (ASTM D256)	Kg/cm ²	1.1
Shear Strength (ASTM D732)	Kg/cm ²	600 – 650
Transmittancy: (ASTM D1003)		
Full rays	%	93.3
Parallel rays	%	HAZE= 0.27
Specific Heat	Cal/g/°C	0.35
Heat Distortion Temperature (4.6kg/cm) (ASTM D648)	°C	100
Coefficient of Heat Conductivity	Cal/s.cm ²	4.5 X 10 ⁻⁴
Coefficient of Linear Expansion (ASTM D696)	Cm/cm/°C	6.5 X 10 ⁻⁵
Ultimate Temperature of Continuous Operation	°C	60 – 90
Flammability (ASTM D635)	Mm/ min	33
Surface Resistivity at 28°C	Ohm	> 10 ¹⁶
Volume Resistivity (ASTM D257)	Ohm cm	> 10 ¹⁵
Thermoforming Ranges	°C	140 – 180
Dielectric Strength (ASTM D149)	Kv/Mm	20

VALE PLASTICS

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